

Application No. 10/762,916
Amendment Dated 2/16/2009
Reply to Office Action of September 23, 2008

REMARKS/ARGUMENTS

By this Amendment, claim 34 is canceled, claims 35-48 are amended and claim 50 is added. Claims 35-50 are pending.

Favorable reconsideration is respectfully requested in view of the foregoing amendments and the following remarks.

The Examiner objects to claim 34, setting forth that lines 6-8 are indefinite and fail to particularly point out the level of intensiveness of the application. Furthermore, the Examiner sets forth that claims 34-49 are rejected under 35 U.S.C. 103(a) over Herington in view of Sankaranarayan and Merkling. Accordingly, claim 34 is cancelled. Furthermore, new claim 50 is added.

New claim 50 sets forth a method for supporting a transaction application and a parallel application in a clustered system utilizing a service level agreement, the clustered system having clustered system resources, the method including allocating the clustered system resources to the transaction application and to the parallel application. New claim 50 also recites reallocating to the transaction application a portion of the clustered system resources allocated to the parallel application in response to identifying a violation of the service level agreement associated with a high load level on the clustered system resources allocated to the transaction application.

In the Applicants' invention, the resources of a clustered server system support transaction applications such as, for example, web-based stock trading. The resources of the Applicants' clustered system simultaneously support numerically intensive parallel applications, for example, portfolio management or data mining. The concurrent support of transaction and parallel applications on server clusters occurs in an environment of highly variable loads,

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wherein the ratio of peak traffic to average traffic can be very high.

Conventional clustered server systems are typically configured to handle the peak workload. Consequently, the resources of the server-clustered server systems are relatively idle much of the time. This can be a very inefficient use of computing resources. The Applicants' invention solves this inefficiency problem in the context of service level agreements, wherein inefficient use of resources during peak load on the resources allocated to the transaction applications results in a violation of a service level agreement.

Neither Herington, Sankaranarayan nor Merkling teach the reallocation of resources executing parallel applications in the same clustered system to help run the transaction applications when service level agreements are violated. Additionally, Masters, previously cited against claim 1 of the instant application in the first Office Action, does not teach or suggest the claimed features. As noted by the Examiner at that time, Masters teaches sending a request to a Resource Manager to scale up a new copy of an application or move the application to a new host when an application or an application path is not satisfying the assigned requirements. See Col. 37, lines 47-58 of Masters. However, either response to the request in the system taught by Masters involves allocating free resources from outside the clustered system, for scaling up the resources that are performing the transactional applications. See Col. 52, line 6, *et. seq.* of Masters, which describes the operations of the Resource Manager when the QoS (Quality of Service) manager indicates that scale-up actions should be taken, based on measured application performance. At Col. 52, lines 14-17, Masters teaches "maintain[ing] a global view of the state of the entire distributed environment including status information on all host, networks, and

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applications" (emphasis added). Thus, there is no suggestion that resources running a parallel application be allocated under these circumstances.

This is distinguishable from the Applicants' invention, as recited in new claim 50. In the Applicants' claimed system, additional clustered system resources from the resources running a parallel application are allocated to performing a transactional application, when the resources performing the transactional application encounter a peak load under a service level agreement.

Thus, in the invention of claim 50, the additional resources allocated to the transaction application are reallocated from a parallel application running within the same clustered system as the resources as the resources running the transaction application. The Applicants submit that this is a significant distinction from the prior art, since it results in a more efficient use of the resources of clustered server systems operating under a service level agreement.

In fact, to the extent that the parallel applications are computationally intensive, and unlikely to be free when the transaction resources are at peak load, masters teaches away from reallocating resources away from the parallel applications.

For at least the reasons set forth above, it is respectfully submitted that the above-identified application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are respectfully requested.

Should the Examiner believe that anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

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Respectfully submitted,

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Please charge or credit our
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consideration of this submission.

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